

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

*Applicant:*  
M. McMasters

*Application No.:* 10/659,145  
*Confirmation No.:* 3043

*Filed:* 09/10/2003

*Title:* Thick Coated Combustor Liner

*Art Unit:* 3746

*Examiner:* Kim, T.

RECEIVED  
CENTRAL FAX CENTER

SEP 03 2005

**Response under Rule 116**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

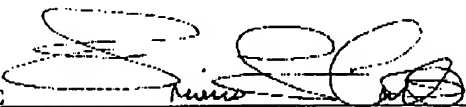
In response to the final office action dated as mailed on 07/05/05, and having a period of response extending through and including 10/05/05, Applicant requests reconsideration of the above identified application.

On 12 July 2005, Applicant submitted an Interview Summary within the one-month requirement found in the examiner's Interview Summary, PTOL-413, which was attached to the office action.

Applicant notes that the SIDS originally filed by fax on 15 Jan 2005 before the first office action dated 01/24/05

**CERTIFICATE OF TRANSMISSION (37 CFR 1.8a and MPEP 512)**

I hereby certify that this 36-PAGE correspondence is being facsimile transmitted to the U.S. Patent and Trademark Office at Fax No. 571-273-8300 on the transmission date indicated below.

FRANCIS L. CONTE  3 September 2005  
(Name of person transmitting paper) (Signature of person transmitting paper) (Date)

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

has now been entered and considered by the examiner, with it being noted that three of the references listed in the form PTO-1449 have been crossed out by the examiner as having been subsequently uncovered by the examiner in his search of the art, and separately listed by the examiner on the form PTO-892.

Accordingly, those references have been duly considered by the examiner, along with the many other references now of record.

In para. 7 of the office action the examiner notes Applicant's amendment to the drawings which was filed concurrently with the amendment to the specification and claims.

However, in block 10 of the Office Action Summary, the examiner has failed to indicate whether or not the drawing amendment has been entered or objected to; and in the Detailed Action no objection to the drawing has been made.

Accordingly, in the next office action, the examiner is requested to duly enter the previously submitted drawing amendment.

Applicant traverses the omnibus rejection of claims 1-22 under 35 USC 112, first paragraph.

Applicant also traverses the examiner's characterization that the "amendment of the specification and drawings is inconsistent with those originally filed with the office."

Applicant further traverses the examiner's characterization that the "amendment introduces new matter in redefining how the spacing B ... from that of the original specification and drawings."

And, Applicant further traverses the remaining contentions of the examiner under this rejection as being without evidentiary or legal support; and as being an incorrect interpretation of Applicant's claimed invention, the support therefor, and the adequate written description thereof.

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

Indeed, the fundamental error in the examiner's rejection lies in the examiner's express understanding of the written description as presently amended, which per se supports both the original and amended claims.

A test for complying with the written description requirement of 35 U.S.C. § 112, first paragraph, is presented in *Ex parte Harvey*, USPQ2d 1626 (Board of Patent Appeals and Interferences, 1987) as follows:

Compliance with the written description requirement of Section 112 only requires that appellant's application contain sufficient disclosure, expressly or inherently, to make it clear to persons skilled in the art that appellant possessed the subject matter claimed. In *re Mott*, 539 F.2d 1291, 1990 USPQ 536, 541 (CCPA 1976). The test for determining compliance with the written description requirement is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession of the claimed subject matter, rather than the presence or absence of literal support in the specification for the claim language. In *re Kaslow*, 707 F.2d 1366, 217 USPQ 1089, 1096 (Fed. Cir. 1983).

And, in *Ex parte Hradcovsky*, 214 USPQ 555 (P.O. Bd. App. 1982) it was held that:

Appellant's specification as originally filed describes the invention in substantially the same terms as those employed in the claims and, thus, the description requirement of the statute has been complied with.

Note, in particular, the holding of this *Hradcovsky* case. Applicant's present claims maintain the same terms regarding the spacing between the TBC and lip distal end as originally found in the specification, in verbatim; see para. 31 for example only.

The written description requirement under Section 112,

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

para. 1, has therefore been sufficiently met, rendering the rejection without merit.

The examiner overlooks the substantial, and consistent, description in the specification regarding the recited spacing term for the two disclosed embodiments in view of the Applicant's de minimis amendment of the specification and drawings.

Note, again, that the spacing features of the claims have not been amended.

Note, that the written support and description therefor have not been amended in the specification.

And, note, quite significantly, that the STRUCTURE of the invention has NOT been amended in the drawings.

The amendments to the drawings and specification relate only to the designation of the spacings B and H; and those designations B and H are mere labelling tools used for describing the structure of the invention, and do not in and of themselves amount to structure, and cannot be considered new matter as that term is understood under patent law.

Note, the surgical precision used in amending only para. 50 to replace the spacing designation H for B: two minor and identical changes. The remainder of the written description is unaltered in this regard.

Note, the surgical precision used to amend figure 4 and replace the preexisting label H with the label designation B.

Note further, the corresponding surgical precision used to amend figure 3 to identify the spacing B corresponding with the similar spacing H previously used in figure 4, and now amended to conform therewith.

The Drawing amendment explains these amendments and provides ample support in the specification therefor as reproduced hereinbelow:

In figure 3, the B spacing has been amended to conform with the specification; and the incline angle G has been adjusted to 45 degrees.

In figure 4, the B spacing has been supplanted by

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

the original H spacing, now amended as the B spacing to similarly conform with the specification.

In both figures 3 & 4 the TBC 42 is spaced aft from the nuggets 30, which spacing B is less than the thickness A of the panels aft of the nuggets in the combination of features disclosed at paras. 31, 37-42, 45, 46, and 48-51 of the specification.

So, where is any "inconsistency" found in the specification that would support the examiner's contention of "new matter?"

Where has the Applicant "redefined" any spacing; and what support in the MPEP or case law does the examiner offer for "new matter?"

And, most importantly, what is "new matter?"

MPEP 2163 presents guidelines for the written description requirement under Section 112, para. 1.

MPEP 2163.05 addresses changes to the scope of the claims which meet the written description requirement as long as the claims are supported by the original disclosure, which disclosure includes the written specification, the drawings, and the claims themselves.

MPEP 2163.06 emphasizes that:

Stated another way, information contained in any one of the specification, claims or drawings of the application as filed may be added to any other part of the application without introducing new matter.

Note, in this very regard that the amendment of the labels B and H in the specification and drawings does not in any way change the STRUCTURE of the invention described in the specification, illustrated in the drawings, and recited in the claims, and does nothing more than conform the specification and drawings and claims as originally filed.

Note that the claims do not recite the express labels B or H, but recite spacings in plain English terms, which plain English terms are also found verbatim in the original description, notwithstanding the additional use of the

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

spacing labels B and H.

MPEP 2163.07 further emphasizes that "Amendments to an application which are supported in the original description are NOT new matter," [emphasis in the MPEP], and lists two examples of "rephrasing" and correction of "obvious errors" which are permissible and do not amount to new matter.

In re Oda is cited in this MPEP section, and indicates that:

"New Matter" is a technical legal term in patent law - a term of art. Its meaning has never been clearly defined for it cannot be ....

In a sense, anything inserted in a specification that was not there before is new to the specification but that does not necessarily mean it is prohibited as "new matter."

Running through the foregoing discussion of the law is the clear and basic concept that the invention described in the original patent must not be changed. We note, first of all, that that is not a problem in this case. The invention before us, as defined in the claims, consists of three specific chemical compounds. There is no change proposed in the claims or in the description of the claimed compounds in the specification. There is no deviation whatever with respect to the invention.

What, again, does the examiner contend is "new matter?"

An "inconsistency," which is what?

"Redefining ... the spacing B?"

The examiner's comments appear to be directed to independent claims 1 and 11, for he has not otherwise addressed any of the twenty-two claims specifically.

Both claims 1 and 11 include the following, same feature, as originally recited without amendment:

said lip having a distal end at said slot outlet being spaced from said coating aft of said slot less than about said coating nominal thickness.

Para. 31 of the original specification presents, without amendment that:

In both embodiments [illustrated in Figures 3 and

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

4], the corresponding lips 34 have distal ends at the slot outlets 38 which are spaced from the coating 42 aft of the slot at a transverse spacing B therebetween which is less than about the nominal thickness A of the coating. For example, the thermal barrier coating 42 may be applied relatively thick, with a nominal thickness A of about 1.1 mm. The transverse spacing B between the nugget lip and downstream coating is less than about that nominal thickness, and may be about 0.8 mm for example. [emphasis added]

Note, the direct antecedent support for the original "aft spacing" feature of claims 1 and 11 in original para. 31, without amendment, and clearly without the adding of any matter whatever.

And, both figures 3 and 4 illustrate this spacing feature, notwithstanding the mere descriptive expedient of the spacing labels B and H, among others.

What then is "the invention" described in Applicant's disclosure, and recited in the claims? No structure has changed in any of the figures, so how possibly could there be any impermissible "new matter?"

Note the Oda case above. Applicant's claims have not changed in regard to the spacing features. The structure disclosed in the figures has not changed. Nor, has the description been changed in this regard. Para. 31 of the specification is quite clear, and provides one example of written description directly supporting the aft spacing features in the claims, and well complying with Section 112, para. 1.

Another example is found in the specification at para. 44 which states:

Figure 3 illustrates in more detail the first cooling nugget illustrated at the upstream end of the liner shown in Figure 2. The nugget inlets 40 extend axially through the bridge 32 with a slight inclination directed toward the facing surface of the lip. In this way, the cooling air 14 is directed axially through the bridge in a jet which glances off the lip in the axial downstream direction for discharge through the annular

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

outlet 38. **Correspondingly**, the thermal barrier coating 42 commences or initiates on the next or aft panel with an inclined ramp at the leading edge thereof which increases in thickness to the nominal thickness of the coating. [emphasis added]

Note that the TBC 42 commences in the next aft panel in the axial downstream direction from the nugget outlet 38.

Para. 46 is yet another example further describing the figure 3 embodiment and states that:

The shallow starting ramp of the thermal barrier coating aft of the cooling nugget preferably initiates directly adjacent to the slot outlet 38, and terminates at a **spacing** with the lip distal end less than about the coating nominal thickness A. In this way, the coating ramp begins immediately at the slot outlet, increases in thickness rapidly to the desired nominal thickness A of the thermal barrier coating, and **all within a suitably short distance of the slot outlet** to maximize thermal protection of the panel thereat due to the cooperation of the film cooling air being discharged through the slot and the introduction of the thermal barrier coating immediately downstream therefrom. [emphasis added]

Note, again, that the TBC 42 commences aft from the nugget outlet 38 in the axial downstream direction.

The figure 4 embodiment is further described in para. 48 as follows:

Correspondingly, the thermal barrier coating 42 [in Figure 4] **initiates** or commences on the **aft panel** with a blunt step at the leading edge thereof. The blunt step has a corresponding inclination angle G which is preferably slightly less than about 90 degrees and may be down to about 85 degrees. [emphasis added]

And, at paras. 50 and 51 the description continues as follows:

In the Figure 4 embodiment, the leading edge coating step is preferably **spaced aft** from the slot outlet 38 by a suitable **axial spacing H**. In particular, the leading edge step is preferably **spaced from the distal end of the lip 34 less than about the nominal thickness A of the thermal barrier coating**. For example, the spacing H may be about 0.8 mm which is slightly less than the 1.1 mm nominal thickness of the



PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

coating.

In this way, notwithstanding the blunt leading edge of the coating 42 at the slot outlet, the transverse spacing B between the distal end of the lip and the blunt leading edge of the coating may remain relatively small, and less than about the nominal thickness A of the coating, without obstructing the flow of the spent impingement air from the cooling nugget slot 36. The nugget inlets 40 retain their metering capability with their collective flow area being less than the outlet flow area between the lip and the blunt coating leading edge. [emphasis added]

These various paragraphs in the specification are consistent in their written description to support in verbatim the original claim terms, and the examiner has not shown otherwise.

The examiner has uncovered in para. 1 of the first office action an obvious error between the mere spacing labels B and H shown in the figures and described in the specification.

Clearly, the "diagonal" spacings B identified by the examiner in figures 3 and 4 are incorrect and do not conform to the either the original claims or the original specification since the size thereof appears greater than the nominal thickness A of the TBC 42 illustrated in these figures and described in the specification, with the exemplary 1.1 mm thickness thereof.

Note that para. 31 describes BOTH embodiments shown in figures 3 and 4, and that the transverse spacing B "may be about 0.8 mm for example," which is "less than about that nominal thickness [1.1 mm] ...."

Similarly, para. 50 specifically describes the figure 4 embodiment, and originally stated that the "spacing H may be about 0.8 mm which is slightly less than the 1.1 mm nominal thickness of the coating."

Note the identical spacings in the two embodiments of figures 3 & 4, down to the tenth of a millimeter (0.8 mm).

Note also that the original specification and claims and

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

drawings are not in any way incorrect as for the STRUCTURE of the invention being described.

The "axial spacing H" introduced in para. 50 for the figure 4 was and remains an accurate physical feature, and without any error, and this description alone is sufficient to meet the written description requirements of Section 112, para. 1 for the claim features being challenged by the examiner, and the examiner has not shown otherwise.

The examiner is duty bound to examine all applications under the various provisions under the patent statute, and bring any errors discovered therein to the attention of the applicant. Why? To ensure the integrity of the patent application, and allow the applicant to amend the application, as of right. The MPEP contains many provisions in this regard.

In response to the examiner's original objection to the drawings, the simplest solution therefor was to retain the physical spacing previously represented by the label H in figure 4, and change that mere label to the label B. The original label B in figure 4 has been deleted as being extraneous. The specification was correspondingly amended at para. 50 with the minor substitution of the label B for the originally presented label H.

No other change was required in the specification because the entirety of that original specification was consistent with this minor change in mere labelling. A label change, nothing more, clearly conforms to the original disclosure.

And, that original disclosure for the figure 3 embodiment remains accurate as written, with the correspondingly simple amendment to the labelling in figure 3 to move the original label B therein to the aft spacing corresponding with the similar aft spacing originally labeled H in the figure 4 embodiment, and now re-labelled B.

Yet, again, the underlying structure of the invention

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

has not been changed in the claims, specification, or drawings; and clearly no "new matter" has been added to the disclosure. The simple and few changes made to the drawings and specification merely conform the claims, specification, and drawings to each other; which is well permitted by the MPEP provisions presented above, and the various case law cited therein.

Indeed, Applicant is entitled to make even drastic changes to the disclosure when warranted. Any feature illustrated in the drawings can be properly added to both the specification and the claims even though such features were not originally presented therein.

This practice often occurs during typical prosecution for overcoming references not previously known to applicants when drafting the original application. And, the statute and the MPEP permit the addition of new description as long as such addition conforms to any one of the original specification, drawings, and claims.

During the phone interview, the examiner suggested that Applicant should amend the drawings to conform with the description in the specification.

However, Applicant chose instead to amend the specification to conform with the drawings; that is, the structure shown in the drawings, with corresponding amendments to the mere labelling therein.

Applicant's amendments are so simple and minor, they clearly do not amount to impermissible new matter, and the examiner's rejection for merely "redefining" is clearly unwarranted.

It is unfortunate that the examiner does not agree with Applicant's solution to correct this obvious error in labelling; notwithstanding the lengthy telephone interview conducted on May 3rd. Many of the above arguments were made in behalf of the Applicant, but no agreement could be reached.

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

It is hoped that the present arguments presented in this paper will now convince the examiner that no new matter has been added to the disclosure, as that term "new matter" is understood under the MPEP provisions and corresponding case law.

In para. 1 of the final office action the examiner presents the reasons for the new matter contention, but those reasons appear circuitous, and overlook the 99%, plus, majority description of the invention as presented in large part above.

The examiner originally objected to the drawings, and requested suitable correction thereof.

The above corrections were made, which corrections are quite few.

The examiner now contends that the label B "was shown diagonally,"

The examiner also contends that Applicant now "uses an 'axial spacing' B in both Figures 3 and 4."

The examiner's additional contention regarding the "spacing C" is irrelevant since "radial" is not synonymous with "transverse," nor has the examiner provided any dictionary support therefor, or any support in Applicant's specification.

The examiner simply contends that "... applicant cannot designate spacing B ... to an 'axial spacing.'" Why not? Where is the evidence that it has been so changed in accordance with the written specification?

Where is the support in the written specification that the spacing labelled B is "diagonal" as only the examiner contends?

What is the meaning of "diagonal," or "transverse," or "axial," or "aft," or any of the other terms used in the disclosure?

And, where in any of the claims 1-22 now being rejected by the examiner are the terms "diagonal" or "transverse" or

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

"axial" found as relevant to the "aft" spacing of the TBC 42 from the lip distal end in independent claims 1 and 11; or from the slot outlet or lip distal end as recited in dependent claims 9, 21, and 22?

These claims use the plain and simple "aft" spacing of the TBC in the combustor liner otherwise being recited.

Why then does the examiner reject claims 1-22 when the labels B and H are not recited therein, nor the term diagonal, nor the term axial?

Claims 1-22 recite merely aft spacing, which is well described in the disclosure, and is entitled to the typically broad interpretation thereof, whether or not that spacing is radial, axial, diagonal, or otherwise, or defined by the examiner in any other manner of his choice.

The original written disclosure contains ample antecedent support for the claims as originally filed, as well as amended, and in this regard, the examiner has not shown otherwise.

The term "transverse" as used in the specification has its ordinary definition, which in accordance with one dictionary simply means "lying, situated, placed, etc. across; crossing from side to side; crosswise."

Transverse is a general term, and is entitled to the broad interpretation thereof typically afforded such terms by examiners in typical examination practice before the USPTO.

And, transverse can have any orientation relevant to the description in which it is used.

The examiner identifies the "transverse" height C introduced in para. 37 for the figure 3 embodiment. But, that transverse height C is relative to the slot outlet 38 which happens to extend primarily in the axial direction.

The examiner, himself, attempts to define for the Applicant that transverse is the equivalent of radial, and then argues that the transverse spacing B therefore cannot be "redefined" to an axial spacing. But, this is mere examiner

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

argument.

Where has the examiner presented any evidence to support this (il)logic?

Extending the examiner's own (il)logic, if transverse is the equivalent of radial as the examiner seems to suggest, why then does the examiner seem to also contend that the original spacing B shown as "diagonal" was the one and only correct interpretation for "transverse?"

Diagonal could also be axial, which, of course, is not radial according to the examiner's apparent attempt to equate radial with transverse.

The examiner further complicates the analysis, and further opines that "the spacing B ... is the only spacing generic to both Figures 3 and 4...." But, the claims 1-22 do not recite the "spacing B," instead they recite simply the aft spacing of the TBC, which aft spacing is entitled to broad scope, including the exemplary species disclosed in the specification.

What is generic to both figures 3 and 4?

See the above paragraphs reproduced from the specification, with the emphasized bold features thereof.

In para. 31 the "transverse spacing" is generic, and that spacing is the aft spacing between the TBC 42 and the distal ends of the lips 34. That spacing happens to be labeled B in the figures for convenience.

What is "aft?" What is "distal?"

In paras. 44, 45, and 46 describing figure 3, the TBC 42 commences on the next or aft panel in the axially downstream direction, and is spaced **axially aft** from the distal end of the lip defining the cooling nugget 30.

In para. 50 describing figure 4, the leading edge of the TBC is spaced **aft** from the slot outlet 38 by a suitable **axial** spacing, originally labeled H, and now labeled B by amendment.

These exemplary paragraphs of the original disclosure

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

amply rebut the examiner's contention that "the amendment to paragraph 50 changes the designated spacing B to an 'axial spacing.'"

The "aft spacing" recited in the claims and disclosed in the specification has been, and remains consistent in its meaning, including axial, as an example. Even the examiner's attempt to limit the spacing B to a diagonal spacing would necessarily also including an axial spacing, since diagonal, of course, would have at least two components of direction, radial and axial for example.

No, Applicant's claims are not limited to a "diagonal" spacing between the TBC and the cooling nugget since no such term is recited in any of the claims. This is standard claim interpretation practice, which examiners well know and practice in broadly construing claim features without apparent limit.

It is quite clear that the examiner himself is affording exceptionally broad interpretation to the various claims as evident from the various rejections made under Sections 102 and 103. Yet, this same examiner now attempts to narrowly construe the meaning of the aft spacing recited in the claims in the guise of the new matter rejection. This inconsistency is well apparent, and merely poisons the rejections of record.

Section 112, first paragraph, requires analysis of the specific terms used in the claims, and the examiner has not shown how any of claims 1-22, including the specific terms therein, have not be adequately described in the disclosure.

The simple amendments made to correct the obvious error in label designations B and H do not affect the structure of the invention illustrated in the figures, and do not affect the basic description thereof as presented in the specification, and clearly do not add any matter to the disclosure of the invention which is defined by its physical structure.

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

Lastly, the examiner is requested to re-read the specification, and simply eliminate all references to any of the various labels used for convenience, including labels B and H in particular. The adequacy of the written description will then become quite apparent.

The examiner should also eliminate all references to the element numerals, 10 et seq, as well. The adequacy of the written description will, yet again, become quite apparent.

The numerals 10 et seq and the letters A-H are all mere labels used for convenience in drafting patent applications.

Would the examiner also reject the claims for new matter if an applicant were to change or redefine any one or more of the numerals 10 et seq?

Suppose one of the numerals 10 et seq were poorly placed in the drawings; and an amendment were made to relocate that poorly placed numeral. Would such relocation amount to new matter?

Why then should the change of label H to B in figure 4, and the relocation of the label B in figure 3 to match figure 4 amount to new matter?

The Applicant is entitled to amend the disclosure to conform with the remainder of the disclosure, and this the Applicant has done in response to the examiner's original drawing objection.

Since the examiner has not separately addressed any of the twenty-two claims under Section 112, first para., the above remarks apply equally as well to all claims by dependence from their parent claims 1 and 11.

Accordingly, withdrawal of the omnibus rejection of claims 1-22 under 35 USC 112, first paragraph, is warranted and is requested.

Applicant traverses the rejection of claims 1, 2, 11-14, and 17-19 under Section 102(e) over Moertle et al.

The examiner's attempt to apply Moertle, figure 4 thereof in particular, assumes that the figures thereof are



PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

drawn to scale and illustrate relative dimensions for rejecting Applicant's claims which specifically recite various relative dimensions.

However, MPEP 2125 provides in part:

PROPORTIONS OF FEATURES IN A DRAWING ARE NOT EVIDENCE OF ACTUAL PROPORTIONS WHEN DRAWINGS ARE NOT TO SCALE

When the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value. See *Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000) (The disclosure gave no indication that the drawings were drawn to scale. "[i]t is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.").

The examiner has failed to show how the figures in the Moertle reference are drawn to scale, which is clearly not the case.

This attorney has enlarged figure 2 of the Moertle reference on his copy machine three times in a sequence at 200% each for a total of an 8x enlargement to compare that enlargement with figure 4 of the Moertle reference.

In figure 4, the TBC 71 appears to have a nominal thickness of about 4 mm, and the upstream slot has a nominal height of about 7 mm; and the examiner has argued that "said coating is as thick as about half said slot height" as relevant to claim 2.

However, in the 8x enlargement of figure 2, the corresponding nominal thickness of the TBC for the second panel in the inner liner is yet again about 4 mm, but the corresponding height of the upstream slot is about 12 mm, which is more than three times the TBC thickness.

The examiner himself may readily examine figure 2 of Moertle, or he may repeat the enlargement himself on his

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

office copy machine.

Nevertheless, figure 4 in Moertle is clearly not a scaled enlargement of figure 2 from which it comes; and Moertle fails to specify any scale in fact.

The Brief Description of the Drawings does not indicate scaled drawings; nor does the Detailed Description of the Invention.

The TBC 69 and 71 in the Moertle reference are ancillary features, not directly relevant to the multihole combustor liner described in the disclosure and recited in the claims.

Note, in paras. 19 & 20 the precise sizes of the cooling holes to three decimal places; and the precise hole spacing to 3.0-4.0 hole diameters, as recited in some of the claims.

Yet, no mention is found in the Moertle reference for any specific dimensions of the TBC 69,71 or the relative placement thereof in the combustor liners.

Accordingly, there is insufficient evidence in the Moertle reference in accordance with MPEP 2125 for the examiner to support even a prima facie rejection of the claims under Section 102.

Presented above in the 8x enlargement is only one example of the failure of Moertle to meet the relative dimensions recited in Applicant's claims, which dimensions are well disclosed in the Applicant's specification with actual numerical values.

Furthermore, both independent claims 1 and 11 recite that the lip distal end is spaced aft from the TBC 42 less than the coating nominal thickness. In figures 2 and 4 of Moertle, the TBC 71 appears to commence at the outlet of the upstream slot, with no aft spacing therefrom at all.

Claim 12 recites the smaller collective flow area of the inlets relative to the slot outlet, which the examiner merely repeats verbatim in para. 3 of the office action without identifying any evidence in the Moertle reference.

Examiner argument is never evidence, and the examiner

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

has identified no evidentiary support in Moertle to support the rejection of claim 12. Claim 12 involves a 3D affect, and the Moertle references lacks any evidence in the 3D construction thereof as would be relevant to claim 12.

The examiner has overlooked claim 13 and the relative features recited therein having no evidentiary support in the Moertle reference which is not drawn to scale.

Claim 14 also recites relative features having no evidentiary support in Moertle which lacks any relevant scale, notwithstanding the examiner's mere contention.

Claims 17 and 18 recite relative features and the TBC being spaced aft from the lip distal end, whereas the TBC 71 in Moertle does not appear to have such spacing, and figure 4 of Moertle lacks any relevant scale.

Claim 19 recites relative features lacking in Moertle which has no disclosed scale, with the leading edge ramp on the TBC 71 in figure 4 of Moertle not being spaced aft from the lip distal end.

The examiner's exceptionally broad interpretation of Applicant's claims over the Moertle reference will correspondingly enlarge claim scope in later infringement analysis of the patent when it issues for the subject application.

Notwithstanding the above traverse on the merits in applying the Moertle reference which lacks scale and evidentiary basis, Applicant is additionally attaching to this response a Declaration by inventor McMasters under 37 CFR 1.131 for antedating the Moertle reference, and therefore eliminating that reference under both rejections for Sections 102 and 103.

It is noted that the Moertle reference is the publication of a patent application having the same GE assignee, and whose inventors are also employed by GE in the Cincinnati region, with lead inventor Moertle being known to the present inventor.

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

The Declaration provides written evidence to establish under the requirements of Rule 131 invention of the subject matter of all claims 1-22 now being rejected by the examiner prior to the 04/29/2002 effective date of the Moertle reference on which the various rejections are based.

The Declaration includes the time line for conception, building, testing, and approval of the subject invention in actual combustor hardware, which time line commences on or about May 2001 before the filing date of the Moertle reference, and extends continually to completion of the endurance test and filing of the subject patent application near the fall of 2003 in the ordinary course of development by GE Aircraft Engines.

The Moertle reference should now be eliminated as a reference as another basis for overcoming the art rejections of record.

Accordingly, withdrawal of the rejection of claims 1, 2, 11-14, and 17-19 under Section 102(e) over Moertle et al is warranted and is requested.

Applicant also traverses the rejection of claims 3-6, 15, and 16 under Section 103(a) over Moertle et al and McCaffrey et al.

Firstly, Moertle fails to disclose or suggest the invention as recited in these claims for the reasons presented above under the Section 102(e) rejection.

And, the McCaffrey reference was amply rebutted in response to its use in the first office action, and would appear to teach away from Applicant's claims in view of the different problems and solutions being disclosed therein which are not relevant to the problems and solutions disclosed in the Moertle reference, or in Applicant's disclosure.

Furthermore, the Moertle reference is additionally disqualified as follows.

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

STATEMENT UNDER MPEP 706.02(1)(2)

US Publication US 2003/0200752 A1 - Moertle et al, is disqualified as prior art under Section 103(c) because the subject matter of that publication and the subject matter and claimed invention of the present application No. 10/659,145 were, at the time the invention in the present application was made, owned by or subject to an obligation of assignment to the same assignee of record therein; 35 USC 103(c).

Accordingly, withdrawal of the rejection of claims 3-6, 15, and 16 under Section 103(a) over Moertle et al and McCaffrey et al is warranted and is requested.

Applicant also traverses the rejection of claims 8, 9, and 20-22 under Section 103(a) over Moertle et al and Kenworthy.

Firstly, Moertle fails to disclose or suggest the invention as recited in these claims for the reasons presented above under the Section 102(e) rejection.

And, the Kenworthy reference was amply rebutted in response to its use in the first office action, and would appear to teach away from Applicant's claims in view of the different problems and solutions being disclosed therein which are not relevant to the problems and solutions disclosed in the Moertle reference, or in Applicant's disclosure.

Furthermore, the Moertle reference is disqualified by the Statement under MPEP 706.02(1)(2) presented above.

Accordingly, withdrawal of the rejection of claims 8, 9, and 20-22 under Section 103(a) over Moertle et al and Kenworthy is warranted and is requested.

It is noted that the examiner's rejections under Section 103 as presented in paras. 5 and 6 copy substantially verbatim the previous rejections, but now additionally using the Moertle reference.

That reference fails to disclose or suggest any of the

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

claims of record, and the additionally applied references fail to supplement the substantial shortcomings of the main Moertle reference.

The verbatim repeat of the Section 103 rejections is evidence of the failure to afford due weight to express claim language, and the specific problems confronting the present inventor, and Applicant's invention in the whole, or those references in the whole.

Nevertheless, the Moertle reference should no longer be available as a reference, rendering unsupported all of the rejections on the art of record.

This response is being submitted under Rule 116 to traverse the final rejection, and should provide sufficient rebuttal for withdrawing all of the rejections of record, and now allowing this application to pass to issuance.

The undersigned attorney would like to again thank the examiner for conducting the previous telephone interview, and hopes that all remaining issues have been resolved. If warranted, however, this attorney would welcome another phone interview with the examiner if any last issues need to be resolved to complete this matter and avoid a needless appeal.

To be certain, this attorney and the examiner have had differences of opinion under the MPEP and case law, but our objectives should be the same in producing a patent application meeting the various legal standards for presenting claims sufficiently written to patentably distinguish over the relevant prior art.

Let's not let such differences of opinion further complicate the prosecution of this application, and if further amendment would be desirable to resolve any remaining differences of opinion, this attorney would welcome the opportunity to do so.

The examiner would appear to have considerable discretion in resolving the issues following the final rejection, and the Rule 131 Declaration is being submitted in

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

accordance with MPEP 715.09 as seasonably presented following the new ground of rejection presented in the final office action.

And, the final office action appears to be premature, and unwarranted.

On page 8 of the previous amendment, this attorney repeated the defect in the first office action which failed to timely consider the SIDS timely filed by fax on 15 January 2005, but not considered by the examiner in that first office action

This attorney followed the examiner's instructions made in the 1/31/05 phone call; and requested the continued right to further amend the claims, if required.

At page 6 of the final rejection, the examiner contends that Applicant's amendment necessitated a new search and consideration of the art; but, no new art has been listed by the examiner. Instead, the examiner has now applied the Moertle reference in the final rejection, which reference was timely submitted by the Applicant, but not timely considered by the examiner.

Rule 104 requires completeness and thoroughness by the examiner and the application of the best references available. However, the examiner has failed to timely consider the Moertle reference, which is now being used to the disadvantage of the Applicant in limiting further prosecution under Rule 116.

Accordingly, in fairness, and consistent with MPEP 707.07(g) and 706.07(a), Applicant requests the withdrawal of finality in the event the present response does not lead to allowance of the application, and that the next office action be non-final so that the examiner and this attorney can resolve any remaining issues.

As the Rule 131 Declaration shows, the present invention is a reality, and solves specific problems for significantly enhancing endurance of gas turbine engine combustors which

PATENT  
Docket GE126465

RESPONSE UNDER 37 CFR 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 3746

contain the hot combustion gases in an extremely hostile environment.

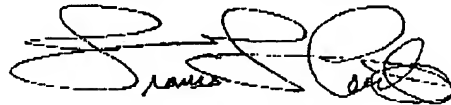
The thick coated TBC is against the conventional teachings and wisdom in the prior art where the TBC is relatively thin in view of its brittle nature, and to avoid obstructing film cooling air in the combustor.

Fairness in prosecution should now result in withdrawal of the rejections of record, and the allowance of the application, without need for further prosecution or appeal.

However, if the examiner believes further issues must be resolved then fairness in re-opening prosecution would be further warranted.

In view of the above remarks, allowance of all claims 1-22 over the art of record is warranted and is requested.

Respectfully submitted,



Francis L. Conte  
Registration No. 29,630  
Attorney for Applicant

Date: 3 September 2005

6 Puritan Avenue  
Swampscott, MA 01907  
Tel: 781-592-9077  
Fax: 781-592-4618

Attachment:

Declaration under 37 CFR 1.131 by M. McMasters  
(twelve pages, including attachments)